

Abstract

Method for generating a trigger signal according to the current differential protection principle and current differential protection arrangement

The invention relates to a method and an arrangement for generating a trigger signal according to the current differential protection principle in the case of a fault on a section of an electrical power supply system, in which differential current values and stabilization current values are detected and monitored with regard to exceeding limit values; a trigger signal is generated if positive results of the instances of monitoring are present.

In order, in the case of such a method, to obtain a trigger signal reliably and certainly in the case of a fault on the section of an electrical power supply system, according to the invention, the differential current values (i_d) and the stabilization current values (i_s) are calculated with instantaneous values of the detected power supply currents as instantaneous values. A first measurement quantity (i_{sd}), which is proportional to the differential quotient of the stabilization current (i_s) with respect to time, and a second measurement quantity (i_{dd}), which is proportional to the differential quotient of the differential current (i_d) with respect to time, are formed and a check is made by means of evaluation to determine whether the two measurement quantities (i_{sd} , i_{dd}) exceed a predetermined limit value of the differential quotient of the differential current with respect to time (i_{gd}). If the instances of evaluation and the instances of monitoring produce positive results, the trigger signal (A) is generated.